

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-001340**Date Inspected:** 16-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1200**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2200**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**Location:** Changxing Dao, Shanghai**Quality Control Contact:** William (Bill) Oak**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Coatings Inspection**Bridge No:** 34-0006**Component:** Miscellaneous Metal, OBG 4AW/4BW, Susp**Bid Item:** 77, 78, 79**Lot No:** B265**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

**Miscellaneous Metal**

Base metal surfaces of diaphragm sub assemblies, and 350+- pieces of assorted splice plates and cable trays were abrasive blasted to an SSPC SP-10 condition and Interzinc 22 applied. Numerous pieces were buried in spent abrasive within the blast shop and were re-inspected after transport to the paint shop and then discovered that repairs were required. ZPMC loaded back into blast shop and amended the situation.

**South Tower Lift #1**

Exterior surfaces coated with Interzinc 22 were tested for chlorides and MEK resistance and pencil hardness. All testing results were within the Specification requirements and ZPMC applied Interfine 979 "mist" coat after masking the faying surfaces and cleaning the surfaces to receive the mist coat.

**East Tower Lift #1**

Internal surfaces were discovered to be in need of additional repairs. ABF QA representatives marked low and high (DFT) dry film thickness areas for amendment and repairs as well as areas of excessive utilization of Interzinc 52 beyond 150mm X 150mm maximum area.

**Bikeway Brackets**

Seven (7) brackets received the full complete topcoat of Interfine 979. The following code numbers of these units are: BK001-004, BK001-005, BK001-007, BK001-009, BK001-011, BK002-001.

**Miscellaneous Metal**

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## SOURCE INSPECTION REPORT

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Base metal surfaces of 500+- fill plates were de-greased in accordance with SSPC SP-1 in preparation of abrasive blasting.

### OBG 4AW/BW

Repairs were performed via abrasive blasting existing Interzinc 22 damaged areas to base metal. Base metal surfaces did not meet SSPC SP-10 and were thus rejected on the floor area repair locations. Roof areas "U" rib stiffener surfaces were beyond maximum temperature to permit coating application. ZPMC performed re-work to improperly prepared areas to comply with SSPC SP-10 and waited for upper surfaces to cool then applied Interzinc 22.

### Suspender Brackets

Thirteen (13) suspender brackets were "mist" coated with Interfine 979. Eleven (11) brackets were mounted on the segments undergoing trial assembly, two(2) were located on the ground. Code numbers as follows: SB12E, SB14E, SB16E, SB20E, SB22E, SB24E, SB28E, SB14W, SB16W, SB18W, SB20W, SB22W, SB26W. All faying surfaces were masked prior to application.

Note: All inspections were performed jointly with ZPMC & ABF QA/QC representatives and Caltrans QA Lumley when achievable. International Protective Coatings technical service representatives Mr.Alpha Chen and Mr. Peng ZiLi also participated in the inspections and were available for consultation.

### Summary of Conversations:

No relevant conversations on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang. (858) 699-9549, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Lumley,James
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Carreon,Albert
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QA Reviewer
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